



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,234	05/12/2006	Woosun Jung	079728-0012	8942

20277 7590 04/08/2009
MCDERMOTT WILL & EMERY LLP
600 13TH STREET, N.W.
WASHINGTON, DC 20005-3096

EXAMINER

WANG-HURST, KATHY W

ART UNIT	PAPER NUMBER
----------	--------------

2617

MAIL DATE	DELIVERY MODE
-----------	---------------

04/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,234	Applicant(s) JUNG, WOOSUN	
	Examiner KATHY WANG-HURST	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on 1/30/2009 has been entered. Claims 1 has been cancelled. Claims 6 and 8 are amended. Claims 2-10 are still pending in this application.

Response to Arguments

1. Applicant's arguments filed have been fully considered but they are not persuasive.

In response to applicant's arguments that the given references do not teach "any device to acquire, generate and transfer information on container's condition" (page 7 last paragraph), examiner respectfully disagrees. Pederson indeed teaches providing a device that provides each container capability to communicate through satellite or other near field device on the condition of the container (at least see abstract and page 2 lines 29-32). Pederson specifically teaches "...to provide a system which...is capable of monitoring storage devices for goods... and of providing an indication of what is wrong if the container cannot be positioned." In addition, Ulrich explicitly teaches a electronic seal device that tracks and provides not only location information but also container condition, i.e. if the container has been opened before reaching destination. Therefore the combination of Pederson and Ulrich does teach the aforementioned limitation.

In response to applicant's arguments that "relay station does not establish a radio connection between the satellites and containers"(page 8 paragraph 2), examiner respectfully disagrees. Pederson teaches each container has a device to communication with the satellite and if the communication with the satellite cannot be

Art Unit: 2617

established due to lack of direction line of sight, the device tries to relay the information to a near field radio system until the communication is established. Pederson provides an enhanced mechanism to ensure the communication with containers and satellites through relay stations (at least see page 3 lines 9-19 and page 6 lines 5-31.) Therefore Pederson does teach the aforementioned limitation.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Pedersen et al (WO 98/48396)**, cited in applicant's IDS, in view of **Ulrich (US 2005/0154527)**.

Regarding claim 2, Pedersen discloses a system for sending container information including information on a position and state of a container, comprising:
an electronic device provided to the container and including a radio frequency communication module (**Page 2 line 36-page 3 line 15, data processing unit in each container communicating via satellite using radio connection**); a container information transceiver mounted to the container (**Page 3 lines 29-34 near field communication equipment on a plurality of storage devices**) and including a radio frequency communication module and a container state information acquisition module for acquiring state information of the container (**i.e. see Page 3 lines 29-34 set up**

Art Unit: 2617

radio connection to the position satellite and communications satellite; and Page 2 lines 28-32 provide an indication of what is wrong if a container cannot be positioned); a relay (**page 6 line 25 relay station**) disposed in a container yard where containers are collected or on a transportation means that carries the containers(**Fig. 2 item 16 located in a container yard 14**), said relay including a radio frequency communication module capable of communicating with the electronic device and the container state information transceiver and a satellite communication module capable of performing a satellite communication(**Page 6 lines 24-31 communicate with satellite; and Fig. 2**); and a positional information acquisition means capable of acquiring the positional information of the container(**Page 3 lines 1-7 determine position and communicate information via satellites**).

Pedersen does not explicitly disclose an electronic seal device that provides sealing state of a container. **Ulrich** teaches a cargo tracking system in which an electronic seal device (**[0019] and [0025]**) is used not only to monitor the location but also the sealing condition of the container. For example, the device reports to the central system if the cargo is opened during the shipment.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify a generic electronic monitoring device disclosed by Pedersen to an electronic seal device taught by Ulrich in order to monitor multiple aspects of the status of a shipment (**[0016][0017]**).

Regarding claim 3, Pedersen discloses a system for sending container information including information on a position and sealing state of a container,

Art Unit: 2617

comprising: an electronic device provided to the container and including a radio frequency communication module (**Page 2 line 36-page 3 line3, data processing unit communicates via satellite using radio connection**); a container information transceiver mounted to the container(**Page 3 lines 29-34 near field communication equipment on a plurality of storage devices**), said container information transceiver including a condition information acquisition module for acquiring condition information of the container and a radio frequency communication module capable of performing a radio frequency communicating with the electronic seal device (**Page 3 lines 29-34**); a relay (**page 6 line 25 relay station**) disposed in a container yard where containers are collected or on a transportation means that carries the containers, said relay including a radio frequency communication module capable of communicating with the container state information transceiver and a satellite communication module capable of performing a satellite communication(**Page 6 lines 24-31 communicate with satellite; and Fig. 2**); and a positional information acquisition means mounted to at least one of the container information transceiver and the relay to be able to acquire the positional information of the container (**Page 3 lines 29-34; and Fig. 2**).

Pedersen does not explicitly disclose an electronic seal device that provides sealing state of a container. **Ulrich** teaches a cargo tracking system in which an electronic seal device (**[0019] and [0025]**) is used not only to monitor the location but also the sealing condition of the container. For example, the device reports to the central system if the cargo is opened during the shipment.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify a generic electronic monitoring device disclosed by Pedersen to an electronic seal device taught by Ulrich in order to expand the functionality of the monitoring device by tracking not only the location of the container but also the sealing state of the container ([0017]).

Regarding claim 4, Pedersen discloses the system as claimed in claim 2 or 3, wherein the container information transceiver further comprises the satellite communication module capable of performing the satellite communication (**Page 3 lines 1-7 determine position and communicate information via satellites**).

Regarding claim 5, Pedersen discloses the system as claimed in claim 4, wherein the container information transceiver sends the positional and condition information of the container to the satellite when the container information transceiver fails to communicate with the relay (**Page 3 lines 1-7 determine position and communicate information via satellites**).

Regarding claim 6, Pedersen discloses the system as claimed in claim 1 or 2, wherein the electronic seal device transmits the container information to another electronic device located within a communication radius of the radio frequency communication module of the electronic seal device when the electronic seal device fails to communicate with the relay (**Page 3 lines 9-18**).

Pedersen does not explicitly disclose an electronic seal device that provides sealing state of a container. **Ulrich** teaches a cargo tracking system in which an electronic seal device ([0019] and [0025]) is used not only to monitor the location but

Art Unit: 2617

also the sealing condition of the container. For example, the device reports to the central system if the cargo is opened during the shipment.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify a generic electronic monitoring device disclosed by Pedersen to an electronic seal device taught by Ulrich in order to expand the functionality of the monitoring device by tracking not only the location of the container but also the sealing state of the container **([0016][0017])**.

Regarding claim 7, Pedersen discloses the system as claimed in claim 3, wherein the container information transceiver transmits the container information to another container information transceiver located within a communication radius of the radio frequency communication module of the container information transceiver when the container information transceiver fails to communicate with the relay **(Page 3 lines 9-18)**.

Regarding claim 8, Pedersen discloses the system as claimed in any one of claims 1 to 3, wherein the relay is arranged in at least one of a vehicle, a train, an airplane and a container yard **(page 6 line 25 relay station and Fig 1 vehicle, a train and a container yard)**.

Regarding claim 9, Pedersen discloses a container tracking system for tracking container information including information on a position and sealing state of a container, comprising: an electronic device provided to the container and including a radio frequency communication module **(Page 2 line 36-page 3 line3, data processing unit in each container)**; a relay **(page 6 line 25 relay station)** disposed in a container

Art Unit: 2617

yard where containers are collected or on a transportation means that carries the containers, said relay including a radio frequency communication module capable of communicating with the electronic seal device, a satellite communication module for performing a satellite communication, and a positional information acquisition means capable of acquiring the positional information of the container **(Page 6 lines 24-31 communicate with satellite)**;

Pedersen fails to disclose an electronic device is an electronic seal device.

Ulrich teaches a cargo tracking system in which an electronic seal device **([0019] and [0025])** is used not only to monitor the location but also to report to the central system if the cargo is opened during the shipment.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify a generic electronic monitoring device disclosed by Pedersen to an electronic seal device taught by Ulrich in order to expand the functionality of the monitoring device by tracking not only the location of the container but also the condition of the container **([0017])**.

In addition, Pedersen fails to explicitly disclose a control center and sealing state of the container. **Ulrich** teaches a cargo tracking system in which a control center **([0062] a centralized computer system)** including a base station communication unit for receiving the container information transmitted through a satellite from a base station capable of performing a satellite communication with the satellite **([0025] communication via satellite)**, an information processing unit for processing the received container information **([0019] signals received are stored for**

processing, therefore processing unit), a client communication unit (**Fig. 9 item 102**), client for communicating with a client terminal (**Fig. 9 items 102-104**), and an information transmitting/receiving unit for sending the container information to the client terminal with the request from the client terminal for confirming the container information (**[0072] transmitter/receiver; Fig. 9 item 108; [0022] client request**), wherein the electronic seal device transmits the information on the sealing state of the container and sends the container information (**[0025]**), including the information on the position and sealing state of the container (**[0025]**), via the satellite communication module to the satellite and then to the base station (**[0025]**), and the control center sends the container information to the client terminal with the request of the client terminal (**Table 1**).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the monitoring system to include a control center that communicates with client terminals and processing information concerning the container state, as taught by Ulrich, thus allowing a more effective way of continuously monitoring multiple aspects of the status of a shipment (**[0016]**).

3. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Pedersen et al (WO 98/48396)**, cited in applicant's IDS, in view of **Ulrich (US 2005/0154527)**, further in view of Kovach (**US 2004/0143505**)

Regarding claim 10, Pedersen discloses the system as claimed in claim 9 (**Page 1 lines 5-12**), but fails to teach a seal scanner. Ulrich teaches a seal device (**[0019]**) but fails to teach a seal scanner. Kovach teaches an article tracking system in which a seal

Art Unit: 2617

scanner **([0009])** using a radio frequency communication module communicating **([0009])** with the electronic seal device **([0009])** and stores management information including an identification number (ID) of the container and an identification number (ID) of the electronic seal device **([0008] store unique identifier number and merchandise serial number)**.

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KATHY WANG-HURST whose telephone number is (571) 270-5371. The examiner can normally be reached on Monday-Thursday, 7:30am-5pm, alternate Fridays, EST.

Art Unit: 2617

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KATHY WANG-HURST/
Examiner, Art Unit 2617

/NICK CORSARO/
Supervisory Patent Examiner, Art Unit 2617